DOCUMENT RESUME

ED 318 555 PS 018 738

AUTHOR Hierzig, Francis
TITLE Dissemination of the Project's Findings. National Seminar (12th, Luxembourg, February 22, 1989). The CDCC's Project No. 8: "Innovation in Primary Education."
INSTITUTION Council for Cultural Cooperation, Strasbourg (France).
REPORT NO DECS/EGT(89)25
PUB DATE 16 Oct 89
NOTE 24p.; For related documents, see ED 315 172-175 and PS 018 735-740.
PUB TYPE Collected Works - Conference Proceedings (021)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS *Curriculum Development; *Educational Innovation; Educational Objectives; *Educational Practices; Educational Technology; Elementary Education; *Elementary School Curriculum; Foreign Countries; Information Dissemination; Leadership; Parent Participation; *Program Implementation; Science Education; Teacher Role
IDENTIFIERS Head Teachers; *Luxembourg

ABSTRACT

A day-long study session was held in Luxembourg to publicize the results of Project No. 8, Innovation in Primary Education (IPE), of the Council of Europe's Council for Cultural Cooperation. Participants were instructed to view the session in relation to efforts to disseminate the results of the IPE and the revision of Luxembourg's primary school curriculum. The session, which was conducted in French, was attended by about 70 educators, including school inspectors, designers of the new primary curriculum, representatives of primary teachers' trade unions, and representatives of post-primary education. Intitial addresses concerned curriculum revision and the aims of primary education. An account of the IPE was offered. Lectures on new information technologies, science teaching at primary school, and innovation in mathematics teaching were then given. General discussion explored expectations of post-primary education, the new curriculum, organization of the school day, the role of head teachers, parents as part of the educational community, contact schools, and an international information network on education. Included in the appendices are the seminar program, an address by the Minister for Education and Youth, and a list of participants. (RH)

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DECS/EGT (89) 25

ED318555

Project No. 8 of the CDCC
"Innovation in primary education"

Dissemination of the project's findings

12th National Seminar:
Luxembourg, 22 February 1989

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Strasbourg, 16 October 1989 DECS/EGT (89) 25
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The CDCC's Project No. 8
"Innovation in Primary Education"

DISSEMINATION OF THE PROJECT'S FINDINGS
12th NATIONAL SEMINAR:

LUXEMBOURG

Held by the Luxembourg Ministry
of Education and Youth

LUXEMBOURG, 22 February 1989

Report written by Francis Hierzig
Primary Teacher attached to
the Ministry of Education and Youth

The points of view expressed in this report do not necessarily reflect those of the Council for Cultural Co-operation of the Council of Europe

COUNCIL FOR CULTURAL CO-OPERATION (CDCC)
School Education Division

Strasbourg 1989

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INTRODUCTION

On 12 February 1989 a day-long study session was held by the Ministry of Education and Youth in co-operation with the Council of Europe and the Commission of the European Communities. The purpose was to publicise the results of Project No. 8 of the Council of Europe's Council for Cultural Co-operation, on innovation in primary education. This was the twelfth national seminar held for the purpose in the member states on the Council of Europe's initiative.

The session was held in the Jean Monnet building at the Centre européen, Luxembourg, in the presence of Mr Jean-Claude Juncker, Minister of Labour, in place of Mr Fernand Boden, Minister for Education and Youth, Mrs Giulia Podestà Le Poittevin, Head of the School Education Division, Council of Europe, Mrs Arlette Bourgueil, Inspector, French-speaking Belgian member of Project Group No. 8, and Mr Henri Guillaume, Director of the Information Office of the Commission of the European Communities. It was chaired by Mr Jean-Pierre Oestreicher, Honorary Inspector General of Primary Education, who had been the Luxembourg member of Project Group No. 8 and was, at present, Chairman of the Luxembourg Commission set up to design a new primary curriculum.

The session - which was conducted in French - was attended by about 70 participants, including all the school inspectors, the designers of the new primary curriculum, representatives of primary teachers' trade unions and representatives of post-primary education.

OPENING OF THE STUDY SESSION

Mr Oestreicher welcomed participants and explained that the study session was to be viewed in connection with both efforts to disseminate the results of CDCC Project No. 8 and current work on a new primary curriculum in Luxembourg.

Since August 1964, when the previous curriculum had been introduced, significant changes had taken place in Luxembourg's education system, such as the introduction of the pre-primary school attendance requirement as from the age of five, the reduction of the number of children per class and widespread introduction of one-year classes, the fact that about 35% of primary school pupils were of foreign origin, the enrolment of more than 80% of sixth-year pupils to sit one of the entrance examinations for general or technical secondary education and the reduction of school time due to the increase in school holidays and days off.

ADDRESS BY THE MINISTER FOR EDUCATION AND YOUTH

The Minister of Labour, Mr Jean-Claude Juncker, in place of Mr Fernand Boden, Minister for Education and Youth, welcomed the opportunity to discuss educational problems, which were of great interest to him. On behalf of his colleague, the Minister for Education, he emphasised the twofold aim of primary school, which was both to teach and to educate.

In its teaching work, which was a matter of transmitting knowledge, school had to endeavour to develop each child's particular inclinations, bring out his or her aptitudes and qualities, teach children learning and working methods and equip them with the skills and knowledge essential for subsequent training and preparation for working life and adulthood. It also had to pay attention to the child's balanced development: its educative task was to develop each child's potential while fostering behaviour conducive to community life and developing his or her creative and expressive abilities.

To achieve those aims, primary school, which represented a crucial stage in every child's life, needed to bear several factors in mind, namely the distinctive language situation in Luxembourg, the social and economic environment, which was undergoing substantial change, and the change in the school population, which now averaged more than 30% of foreign children in nursery and primary school.

A reorganisation of Luxembourg's primary education had therefore been undertaken in the form of a thoroughgoing revision of the primary curriculum.

It was no doubt a fortunate coincidence that this happened almost at the same time as Council of Europe Project No. 8.

The project, which had been carried out against the present backdrop of economic restrictions and demographic, social, cultural and technological change, had profoundly influenced the Luxembourg authorities' thinking and convinced them of the need to make a number of important innovations, particularly the introduction of science teaching, the new approach to mathematics teaching, the introduction of pupils to new information technologies, the increased emphasis on physical education and sports, the insertion into the weekly school timetable of two lessons in migrant pupils' languages and cultures of origin and the introduction of an optional subject offering pupils an insight into current affairs and major world problems.

Primary school was intended for all children and consequently had an obligation to pay equal attention to all pupils, stimulate the best, encourage the less gifted, protect and support the weakest, and thus prepare them all for the new conditions prevailing in the society of the future.

In conclusion, the Minister congratulated the Council of Europe on launching the comprehensive project on innovation in primary education. He warmly thanked the two lecturers, who had held positions of great responsibility in the project group, for coming to report on the results. He hoped that these would be received with equal interest throughout Europe and would help to build the European school system of the future.

ADDRESS BY MRS GIULIA PODESTÀ LE POITTEVIN

On behalf of the Secretary General of the Council of Europe, Mr Marcelino Oreja, Mrs Podestà Le Poittevin warmly thanked the Luxembourg Government for hosting the seminar. She noted with satisfaction that the revision of the primary curriculum in Luxembourg was intended to place greater emphasis on science, history, self-expression and current affairs and to identify primary education with a distinctly intercultural approach, which brought it fully into line with the concerns and recommendations emerging from Project No. 8 and the previously completed project on the education and cultural development of migrants.

In Europe education and culture had always been indissolubly linked and this approach permeated the Council of Europe's activities.

The members of the project group had decided at the outset to concentrate on innovation viewed as a dynamic process, as an effort to remedy the imbalance caused by the various pressures on the education system, whether external (the new social, economic, demographic and cultural factors) or internal (the demands arising from the upheaval in our knowledge of children's psychological development and learning processes).

School, as a genuine educational community, had a major part to play in the innovation process.

The Project Group had agreed that primary education meant more than teaching the basic skills of reading, writing and arithmetic. It had to stimulate children's general development according to their full potential, help them to acquire and practise democratic values and foster the development of values, interests, knowledge, ideas, life skills, know-how, techniques and attitudes to learning, thus preparing children - by training them to be free individuals and teaching them to think - for the demands of secondary education, work, the family and the community.

This definition of the aims of primary education entailed a radical reform of curricula and a revision of the initial and further training of teaching staff.

From the standpoint of intercultural education, European countries attached increasing importance to the learning of a language other than the mother tongue. In Mrs Podestà's view, the trilingualism characteristic of Luxembourg's education system could offer a valuable educational model in that respect.

ACCOUNT OF PROJECT NO. 8 BY MRS ARLETTE BOURGUEIL

Project No. 8, in which 23 member states of the Council of Europe's Council for Cultural Co-operation had taken part from 1982 to December 1987, was the CDCC's first major initiative in the area of primary education.

Convinced of the paramount importance of the first years of compulsory education, the participants in the project's initial conference (Vaduz, 1982) had unanimously asserted the member countries' resolve to pay special attention to primary education. They had redefined the new aims of primary school, outlined a number of shared concerns, described various innovation methods and expressed the desire for further research into children's learning processes, biological rhythms, development and needs.

The project was divided into two parts: a general discussion of innovation and a detailed study of innovative elements.

The Project Group, anxious to strike a balance between practice and theory, had set up a network of 12 contact schools as a means of fostering exchanges between teachers involved in comparable innovation schemes while incorporating into the project relevant information from the grassroots, including teachers' and parents' reactions and impressions. The group also based its thinking on information provided by teachers' seminars and reports drawn up by independent experts. Educational research workshops and symposia dealt with children's needs and various points of the curriculum, while others took a closer look at particular aspects of innovation.

The objectives of primary education, as defined at the Vaduz conference, "should form an explicit common charter with which each member state 'complies' according to the characteristics of its own education system".

The objectives reflected society's expectations of school in terms of attitudes, skills and knowledge.

Despite the considerable diversity of educational projects in the member states, a few common features had been noted:

- an improvement in the quality of fundamental education,

- respect and support for the child's individuality (arguments in favour of differentiation in subject-matter and teaching methods),

- an improvement in the functioning of schools, which, as social undertakings, face problems in such areas as management, budgetary choices, achievement of quality and profitability, investment, involvement of new partners, drawing up educational projects and broadening their field of action,

- the need for continuity in children's education.

As part of a thoroughgoing revision of curricula, it was essential that certain basic aspects of education such as human rights education, intercultural education, education for peace and environmental education should be incorporated into the curriculum rather than treated as separate subjects. It was just as important to view a series of subjects such as mathematics, science and technology, information technologies, the media and human sciences from the angle of the skills they allowed children to acquire, namely resolving problems, developing strategies for reasoning and selecting information.

The reform of initial and in-service teacher training needed to be carried out in a manner consistent with the new objectives of primary education.

Innovation had been defined as a means of and method for seeking to strike a new balance between school and society, as a dynamic process in which school systems evolved towards a necessary adjustment to the various pressures exerted on them, for the purpose of creating the conditions conducive to the development of truly successful teaching, bearing in mind that there was no single formula for success and that one had to reason in terms of "different forms of success" respecting each child's individuality. This pressing need for innovation was due to profound, rapid change in society.

Innovation did not simply mean launching new ideas; it also meant deciding how to disseminate, implement and assess them. Clearly, there was no single innovation model applicable everywhere at all times. Teacher participation was essential, as was the involvement of all the authorities concerned.

It seemed obvious, and the contact schools appeared to prove, that innovation policies of the planning type (where the head teacher presented teaching staff with specific proposals in which his or her expectations were made clear) and of the interaction type (where the main emphasis was on exchanges of views between teachers) were the most likely to bring about real changes in classroom practice.

The case studies presented by the member states and the reports prepared by the contact schools had enabled the project group to record five main styles of innovation among various other alternatives. These nevertheless appeared to be primarily a function of the particular situation in the schools where they were applied.

Innovation was mainly facilitated by administrative support, adequate resources, sufficient time for discussion, parental support, the availability of additional help for pupils with learning difficulties and the assistance of professional trainers or specialist researchers. Success depended largely on adequate resources and external support for teaching staff. The difficulty most often mentioned during an evaluation experiment was lack of resources, especially of time for discussion incorporated into the school timetable. Teachers indeed regarded lack of time as the main hindrance. Teachers' resistance to change was scarcely less of an obstacle to innovation.

The next point to be emphasized was the reorganisation of school as a full-scale educational community, which entailed radical changes in the work of primary teachers and consequently a review of their functions. Head teachers needed to be able to rely on the authorities' support when it came to introducing innovation schemes liable to meet with hostility from parents or teachers who were conservative or resisted change. To remedy this, information and training sessions were needed to overcome parents' anxiety and encourage families to co-operate. Likewise, it was important to rethink teacher training from the standpoint of innovation. It needed to include project work, team work and training in innovation techniques.

In future, educational research would have to concentrate on classroom practice and involve teachers and admnistrators more fully. A number of research topics calling for special attention had been suggested:

- learning times and rates (especially children's biological rhythms),
- family, social and educational mechanisms which hamper or assist a successful school career,
- curriculum planning and assessment,
- devising assessment approaches and techniques,
- teaching and learning processes in the context of innovation,
- the educational community as a complex social body.

To conclude, Mrs Bourgueil described the final report of CDCC Project No. 8 as the practical expression of people's faith in people and in interpersonal relationships. Although not of major scientific significance, it was nevertheless a deliberately pragmatic report based on a factual observation and respect for the differences and similarities between the countries. It was intended as an analytical and decision-making tool for all those involved in organising school systems and implementing innovations.

INNOVATION IN PRIMARY EDUCATION IN LUXEMBOURG

Some of the innovations referred to in the minister's address were explained in greater detail.

1. New information technologies

by Mr Dominique PORTANTE and Mr Carlo KRIER

Since 1986 an experiment had been under way in a limited number of classes. It was run by a working party directly responsible to the ministry and was associated with the EURYCLEE programme set up by the Commission of the European Communities. It had led to proposals on the approach to be adopted in the new curriculum.

As far as objectives were concerned, the group had opted for the approach involving the use of computer resources - in this case, computers' interactive potential and ability to integrate the different vehicles of the message, especially text, graphics and pictures - in existing subjects, as an aid to active, learner-centred teaching. Three applications had been tried out in the classes taking part in the experiment:

- the use of word processing,
- the use of files,
- work with the LOGO language.

Word processing, which was used intensively at all levels, gave children an opportunity to write, alter, format, archive and print out texts. Several classes had set up actual writing workshops as advocated by the Freinet teaching method. In all cases the amount and quality of written work produced had substantially increased.

File formation and consultation was less widespread. Several projects had been developed for language learning in the second and third years of primary school. It was planned to extend files to science teaching.

The LOGO language, especially the graphic interface which allowed children to outline and explore free and geometrical figures, had been used at the various levels. In upper primary classes it had been in continuous use and links had been devised with the mathematics and particularly the geometry syllabus.

It had taken some time to develop these applications in a manner suitable for incorporation into primary school syllabuses. The choice of software devoid of specific content (such as word processing, file management and the LOGO language) had enabled priority to be given to activities conducive to active teaching based on exploration and discovery and co-operative work forms such as group work.

Other applications were being considered, particularly the use of graphic creation packages, the exploration of micro-worlds and the computer piloting of electro-mechanical devices.

In co-operation with the Scottish Council for Educational Technology, an adventure game had been devised to encourage problem solving, reading and writing by pupils learning French.

Possible future innovations might include the use of exercisers, which could help children enhance and increase their knowledge and skills, and tutorials, which could give them access to new topics in the subjects already taught.

The experiment had been conclusive in that it had highlighted areas of activity in which computers improved the teaching of curriculum subjects. It could be extended to other classes provided that substantial efforts were made to boost in-service teacher training, since teachers were, still more than in other areas, the key to success even more than in other areas.

The effective introduction of information technologies depended on several factors. First and foremost, teachers had to feel at ease with the new media. They needed sufficient technical knowledge to ensure that technical problems did not distract them from the ultimate aim, which was educational. To make good use of information technologies in the classroom, teachers needed some examples of practical applications. And lastly, they had to be able to view information technologies against the background of a familiar theoretical framework and educational approach.

However, the situation was generally rather different. Many teachers felt insecure about the new information technologies. They lacked technical skills and especially practical skills. As always when it came to using a new tool, people were uncertain what to do with it because they did not know the full range of possibilities it offered.

Furthermore, any innovation in education raised a series of questions on teaching and classroom practice.

Teacher training therefore had to operate in four areas. It was provided in the form of training sessions designed not so much to transmit academic knowledge as to show teachers what to do.

As information technologies changed continuously and at great speed, the skills and knowledge transmitted had to be sufficiently broad to cover more than present-day technologies. This trend in the new media therefore required in-service teacher training.

However, training could not be confined to actual tuition. Equally essential was a supportive environment in the form of a back-up system (technical assistance and methodological guidance), a library of model applications with practical and theoretical comments and frequent interaction between teachers in the form of seminars, discussion meetings, a newsletter etc.

At the present time Luxembourg was one of the few countries in Europe where initial teacher training included a compulsory introduction to the new information technologies.

At the end of their statement the speakers were asked about pupils' attitudes to information technologies.

They replied that childrens' reactions were in marked contrast to the reluctance displayed by some teachers. When they encountered difficulties, children made persistent efforts to resolve them.

2. Science teaching at primary school

by Mr Francis JEITZ

The new curriculum included several changes in science teaching, which would for the first time be provided at all levels. While a number of universal principles remained valid, the new curriculum would be much more specific and more comprehensive in this area. The intention would be not only to transmit scientific knowledge, but also to instil scientific and technological methods. Pupils would also have to acquire a number of basic skills.

Science teaching was provided in lower and middle primary school in the form of an interdisciplinary introduction to science covering natural science, geography, history, technology and social sciences. In upper primary school natural science, geography and history were separate subjects, as in the previous curriculum. Technology and social sciences were not expressly included in the upper primary curriculum; they could always be taught as part of the optional subject.

The aims of the introduction to science, which was designed as an entirely new subject, had been defined as follows:

- The intention was to involve all the senses, rather than sight alone. Sensory perception training was the first, fundamental aim.

- The second was to develop cognitive abilities, for example by gradually eliminating children's self-centred view of the world and helping them to discover their environment in an objective manner.

- A third aim was to foster particular attitudes and behaviour patterns: teaching children to love and respect nature, the environment and their fellow-citizens was essential in order to dispel prejudice.

- The last aim was to concentrate on the use of specific methods and techniques such as observing, measuring, representing, experimenting, comparing, manufacturing and collecting information.

The content of the introduction to science was designed in the form of a "spiralling" syllabus and covered five main areas: biology, social sciences, geography, history and technology. These were sometimes sub-divided into several subjects. In the choice of subject-matter for the six years of primary education the "spiralling" syllabus took account of the degree of difficulty and complexity of working methods.

Thus, geography topics started in the first year with children's recognition of their immediate surroundings and gradually led to the geography taught in upper primary school. Biology teaching started in lower primary school with topics such as plant observation and the first steps towards exploring the body, leading to natural science as taught in upper primary school, which dealt with environmental problems or more complex biological topics.

Topics were generally organised around a theme, but vertical and horizontal links were always possible.

Compiling an experiments file helped children to assimilate scientific methods in an active manner.

Since 1981 a working party had been designing suitable teaching aids, in the form of work units, for the introduction to science and for natural science. The full range was expected to be available by the time the new curriculum was introduced in all classes.

3. Innovation in mathematics teaching

by Mr Paul RIEFF

The purpose of innovation in mathematics teaching was to remove the drama and anxiety from mathematics so as to help children experience mathematical activities in an active, joyful manner and (re)awaken their inclination, interest and enthusiasm.

The technological demands of tomorrow required the young people of today to complete their compulsory schooling with a grounding in mathematics, an understanding of mathematically structured thought and an ability to express it.

The educational approach underlying the new curriculum was to tailor traditional arithmetic, with its calculation techniques and reflexes, to a mathematical approach suited to the demands of modern times and new technologies.

Primary school mathematics could no longer be taught in the same way as in the days of the abacus. Other methods were used, such as arrow language and the decimal abacus. An increasingly widespread use of electronic calculators in daily life warranted their use at school and made accurate mental arithmetic and written arithmetic less important than in the past. It would nevertheless be a serious mistake to neglect those calculation techniques completely, making future generations entirely dependent on an electronic instrument to the extent that they were forced to use it for the smallest sum. The intention was rather, therefore, to show pupils other strategies for calculating and teach them to estimate and check their results.

The attainments set in the new curriculum took account of this fact and consequently went much further than those set in 1964.

In particular, children were expected to learn to classify (observe differences and common points, classify according to rules), arrange in order and in series according to rules, generalise and specify (formulate hypotheses and check them, formulate problems, discover rules, principles and laws), analogise (discover similarities, transfer established data to other situations), formalise (translate into mathematical language, use pictorial signs and diagrams, understand signs, decode and encode mathematical signs) and "mathematicise" (deduce mathematical information).

Mathematical awareness training began in nursery school with logical and mathematical games and activities. The transition from pre-primary to primary education had to be smooth, avoiding a break in the progressive, continuous acquisition of mathematical language.

At present, children's access to mathematical language was all too often blocked throughout their school career. Mathematical language, with its figures, letters, signs and symbols, was regarded as undecipherable. The intention was precisely to make it accessible to all pupils according to their cognitive and comprehensive skills, motivate them to acquire, assimilate and master it gradually and enthusiastically, and encourage them to take an active, spirited part in mathematical activities at school.

The new curriculum attempted to achieve these educational aims in practice by graduating subject-matter and attainments for the successive years of primary school (according to a structure inherent to each year and a graduated model), outlining a variety of possible methodological approaches in the form of proposals for suitable systematic teaching methods and leaving teachers free to identify with one or the other method depending on their temperament, creativity and training.

At the end of his statement Mr Rieff was asked several questions.

Some participants suggested that there might be a contradiction between primary and post-primary teaching in terms of the terminology and methodology used in mathematics lessons. He replied that there was no reason to worry: experience proved that pupils were perfectly prepared to tackle mathematics in post-primary education.

Another question concerned teacher training, which would have to be as closely geared to this form of innovation as to advances in science and technology.

As far as parents' attitudes were concerned, information was paramount. Admittedly, to generations of adults used to traditional arithmetic, the new approach to mathematics, as indeed any other innovation, might seem bewildering. Parents needed information which would allow them to help their children.

General discussion

The ensuing general discussion covered several topics. Participants in the study session spoke about head teachers, parents, the educational community, the network of contact schools and the setting up of a data bank on education. Questions were asked about the expectations of post-primary education, the new curriculum and the organisation of the school day.

The discussion revealed that much of the thinking done in the course of Project No. 8 coincided with concerns voiced in Luxembourg. Thus, as Mrs Podestà said, a cross-fertilisation process had taken place.

The views stated are reproduced below insofar as they appear to be of general interest.

The expectations of post-primary education

Every year at least 80% of pupils in the sixth year of primary school sat at least one of the entrance examinations to general or technical secondary school. The examinations covered the sixth year syllabuses in French, German and mathematics.

It was therefore to be expected that post-primary teachers should have been asked to help design the new curriculum.

Co-operation in this area was nevertheless felt to be insufficient. It was suggested that liaison of this kind should be pursued and that the obverse should also be introduced, ie that primary teachers should be represented on the boards drawing up syllabuses for lower post-primary classes.

A number of speakers expressed apprehension about language teaching standards. The timetable scheduled under the new curriculum assigned less time to French and German teaching than hitherto. The decrease was due to the introduction of new subjects and an increase in the time devoted to others.

The authorities were nevertheless of the opinion that the new approach to language teaching could to some extent offset the shorter time available. In particular, a structured German language course, which had not been provided in the past, would be one way of helping pupils to learn German correctly.

Some speakers feared that under the new so-called communicational approach too much importance would attach to oral expression to the detriment of written work and that pupils might consequently face great difficulties in post-primary education, starting with the entrance examination, which consisted of written papers.

The general view, however, was that in primary school the accent had to be placed on oral communication while taking care to strike a balance between oral and written expression.

The new curriculum

It had taken about three and a half years to draw up the new curriculum. While some considered this excessive, it had to be borne in mind that, unlike previous curricula, which were invariably copies or adaptations of the previous one, the new curriculum was the outcome of a thorough, comprehensive revision in all subjects. Furthermore, the timetable included subjects which had not hitherto been taught. Some, such as education for health, consumer education, human rights and the European dimension, were not explicitly listed as subjects because they were not so much specific subjects as topics which could be incorporated into existing subjects, such as the introduction to science or natural science. Others could be taught as part of the optional subject which had been introduced to allow coverage of such topics.

Organisation of the school day

The organisation of the school day had been mentioned in the statement on Project No. 8. In Luxembourg the problem had arisen mainly in connection with school transport, which could be simplified by keeping pupils at school over the lunch hour. It was therefore less an educational than a social problem which needed to be reviewed in the light of changing lifestyles and family habits. For the moment, the Minister had asked local authorities to provide canteen facilities at lunch time.

While no blanket answer was on the cards, specific solutions could be worked out in a number of rural areas where children were compelled to make four school bus trips each day. Local authorities could be asked to introduce a long-morning system on a trial basis. Pupils in rural schools would in any case be able to make good use of their free time.

It had to be remembered that the problem of children's biological rhythms was indissolubly linked to that of the organisation of the school day.

Mrs Bourgueil had observed in her statement that one of the major obstacles to educational innovation was the lack of sufficient time for discussion during teachers' duty hours. The trade union representatives therefore considered it important to bear the question in mind when redefining primary teachers' duties.

The role of head teachers

Mrs Erna HENNICOT-SCHOEPGES noted that in her statement Mrs Bourgueil had repeatedly mentioned the different links in the innovation chain, including head teachers. As the post did not exist in primary schools in Luxembourg, she asked for details of the required profile.

Head teachers had to play a real leadership role: they had to co-ordinate activities at school and act as intermediaries between primary teachers, parents and the authorities. They had to have educational skills, be capable of leading a team, organise the day-to-day life of a school and have a variety of administrative and management abilities. Their chief quality was no doubt the ability to handle relationships with individuals and groups.

For further details, participants were referred to Council of Europe documents DECS/Rech (82) 6, which had an Appendix on "Development needs for institutional leaders", and DECS/EGT (86) 72 ("The role of the headteacher in innovation in primary schools").

Parents as part of the educational community

Mr REMESCH, President of the Federation of Associations of Parents of Primary School Pupils, noted that in other countries the function of educational communities was defined by legislation. Pupils' parents were necessarily a part of them. To ensure that the community functioned efficiently, parents needed to be well informed. In that respect much remained to be done in Luxembourg.

Mrs Podestà confirmed that in Europe there was a very broad trend in favour of involving parents in school activities. In a number of countries there were joint parents' and teachers' associations. However, they had not always proved satisfactory and some countries were already dropping the practice. There was no universal solution to the problem, which needed to be tackled each time in the light of the national situation.

In reply to a question on parents' freedom to choose their child's school, Mrs Bourgueil described the situation in Belgium and Mrs Podestà, while pointing out that the subject had not been discussed as part of the project, outlined the situation in certain countries such as Malta and the Netherlands.

Contact schools

Mr F MILBERT, Secretary General of the National Union of Teachers, asked for further information about the contact schools, particularly their function and the selection criteria. He mainly wished to know why they did not include a Luxembourg school.

Mrs Podestà replied that the Project Group had set up a network of twelve contact schools (only one per country) to gain a better picture of innovation schemes and their application. The purpose of the network was to bring together schools carrying out innovation schemes which

reflected the aims of Project No. 8, to ensure that the results of these experiments were taken into account in the project and to convey to the Group the reactions of teachers, educationalists and parents to the ideas and proposals arising from the theoretical and conceptual work carried out by the Project.

The contact schools did not represent their countries; they had been selected only on account of an innovation scheme likely to be of interest to the Project.

Mr Oestreicher, in his capacity as Luxembourg member of Project Group No. 8, said that the Project Group had dropped a proposal to include a Luxembourg school which had introduced second-language learning because it was not, in this case, an actual innovation.

An international information network on education

Referring to the profusion of documents produced by the various international agencies on the same subject, several speakers criticised the loss of energy and waste of paper involved and asked whether a central data bank could not be set up giving access to all these documents.

Mrs Podestà mentioned ERIC (Educational Resources Information Center) and said that the Council of Europe was endeavouring to achieve this goal by means of EUDISED, the European Documentation and Information System for Education, which nov included an on-line data base accessible through the European Space Agency (ESA-IRS = Information Retrieval Service) and through Pergamon Orbit Infoline. EUDISED also managed a multilingual thesaurus on education and regularly published its Research and Development Bulletin. In reply to the remark that several international organisations dealt with the same subject, she pointed out that this apparent duplication needed to be viewed in terms of the various organisations' different approaches, membership, povers and resources.

APPENDIX I

PROGRAMME

Opening of the session by Mr Jean-Pierre OESTREICHER, Honorary Inspector General of Primary Education, Chairman of the Commission set up to design a new primary curriculum.

Address by the Minister for Education and Youth.

Address by Mrs Giulia PODESTÀ LE POITTEVIN, Head of the School Education Division, Council of Europe.

Lecture by Mrs Arlette BOURGUEIL, Inspector, "Chargée de mission", French-speaking Belgium member of Project No. 8.

Discussion.

Drinks and lunch offered by the Information Office of the Commission of the European Communities, Luxembourg.

Innovation in primary education in Luxembourg, including:

- New information technologies in primary education, by Mr Dominique PORTANTE, Inspector;
- Mathematics, by Mr Paul RIEFF, Inspector;
- Introduction to science, by Mr Francis JEITZ, Inspector.

The expectations of post-primary education.

General discussion.

APPENDIX II

ADDRESS BY THE MINISTER FOR EDUCATION AND SPORT

Mr Chairman, Ladies and gentlemen,

Primary school has a twofold aim which may be summed up by the two words "teaching" and "education".

As far as teaching is concerned, its task is to transmit knowledge of a "necessary and useful" nature, as the Schools Act provides. To do this it must endeavour to develop each child's particular inclinations, bring out his or her aptitudes and qualities, teach children learning and working methods and equip them with the skills and knowledge essential to subsequent training and preparation for adulthood.

These goals presuppose that school should encourage children to enjoy learning, sustain their confidence in success, give them opportunities to assume responsibility and encourage them to work independently.

While school must obviously place the accent on the acquisition of knowledge and the development of intellectual abilities such as reasoning, memory and awareness of scientific, social and economic interrelationships, it must also pay attention to balanced personality development.

Primary school's educative task is to lay greater stress on this by bringing out children's potential, fostering behaviour conducive to community life and developing creative and expressive abilities.

Primary school in our country has always been aware of these goals.

To achieve them, however, it must take constant account of several factors:

- First and foremost, the distinctive language situation prevailing in our country, where all children start learning at school in a language other than their own and start another foreign language in their second year at school.

- Secondly, the social and economic setting in which school evolves.

The setting has changed markedly, especially over the past twenty years. The educational system is affected by the slowing down of economic growth, the technological revolution, the massive influx of new information technologies into daily life and the profound changes taking place in all areas of human activity, together with the decline of the native population, the flow of immigrants mainly from southern countries, the questioning of traditional values and the transformation of family structures.

- Thirdly, the change wrought in the school population by the presence of more than 30% of foreign children, on average, in pre-school, primary and complementary classes in Luxembourg.

Primary school cannot avoid taking these new factors into account. If it indeed represents a crucial stage in every child's life and has a duty to help children become free, independent, responsible, caring adults capable of living in the changing, uncertain modern world, it must obviously do more than introduce them to the basic cultural skills of reading, writing and arithmetic and equip them with knowledge and skills which will remain unchanged throughout their lives: it must give them a broader view of the world around them and instill the need for lifelong, all-round learning.

A reorganisation of primary education has accordingly been undertaken in Luxembourg in the form of a thoroughgoing revision of the primary curriculum. It was no doubt a fortunate coincidence that this was being done almost at the same time as Project No. 8, which was launched by the Council of Europe in 1982 and conducted under the authority of the Council for Cultural Co-operation.

The project, which concerns the demand for innovation in primary education and is set against the present backdrop of economic restrictions and demographic, social, cultural and technological change, profoundly influenced our thinking and convinced us of the need for a number of important innovations.

Thus, subject to the restrictions dictated by the obligation to learn two languages, which will inevitably take up most of the time, our new curriculum innovates by providing science teaching in lower primary school in the form of an introduction to science, adopting a new approach to mathematics teaching in the light of experiments in other European countries, providing an introduction to new information technologies, increasing the amount of time spent on physical education and sport, making room, in the interests of the many migrant pupils, for two weekly lessons in their languages and cultures of origin to be incorporated into the weekly timetable and introducing an optional subject which will allow school to take a greater interest in current affairs and major world problems.

This will inevitably affect the school timetable, teaching methods, the writing of school books, the production of teaching aids, the assessment of academic performance, initial and in-service teacher training, educational research, classroom facilities and even the layout of school buildings.

In the course of this comprehensive effort, it must be remembered that primary school is by definition intended for all children. It has an obligation to pay equal attention to all, stimulate the best pupils, encourage the less gifted and protect and support the weakest. It must be an enjoyable place to come to, with a caring atmosphere conducive to study, work and play. It must avoid overburdening pupils with school work, but ensure that each child succeeds to be the best of his or her abilities by providing suitable teaching in terms of content, methods and strictly defined goals and taking account of the rates at which each child grows, matures and learns as well as his or her capacity to adjust and concentrate.

These goals we have set ourselves can be reached if primary school is able constantly to adapt and renew itself constantly while preserving the benefits of past experience and bearing in mind the needs of society.

Much is at stake in education on the eve of the third millenium, and the imminent deadline of 1993. Primary school, for its part, must help to prepare those who will be active in the society of the future to cope with the new conditions.

All the industrialised countries are tackling similar concerns and we welcome the Council of Europe's initiative in launching this comprehensive project on innovation in primary education throughout the member states. I am pleased that Luxembourg has played an active part in the process.

After the final conference at the end of 1987 and the adoption of the conclusions by the Council for Cultural Co-operation in summer 1988, the Council of Europe launched a wide-ranging campaign to disseminate the results in the countries signatory to the Cultural Convention. Today's meeting is one of the activities intended to publicise them in Luxembourg.

Thank you very much indeed, Mrs PODESTÀ and Mrs BOURGUEIL, for coming to explain them to us. You can see from the number of people attending this study session that the results of Project No. 8, in which you held positions of great responsibility, arouse a lively response here in Luxembourg. I hope they will be received with equal interest throughout Europe and will thus help to build the European school system of the future.

APPENDIX III

LIST OF PARTICIPANTS

Mrs Giulia PODESTÀ LE POITTEVIN, Head of the School Education Division, Council of Europe, Strasbourg.

Mrs Arlette BOURGUEIL, Inspector, French-speaking Belgian member of CDCC Project Group No. 8, Brussels.

Mr Jean-Claude JUNCKER, Minister of Labour, Luxembourg.

Mr Jean-Pierre OESTREICHER, Honorary Inspector General of Primary Education, Chairman of the Commission set up to design a new curriculum, Luxembourg member of CDCC Project No. 8, Luxembourg.

Mr Henri GUILLAUME, Head of Information Office, Commission of the European Committies, Luxembourg.

Mrs Monique ADAM, Primary teacher, representative of the Education and Science Trade Union, Luxembourg.

Sister Jean-Marie BECKER, representative of private education, Luxembourg.

Mr Robert BOHNERT, Secondary teacher, Diekirch.

Miss Marie-Josée BRIMEYER, Inspector, Luxembourg.

Mr Michel CLOOS, Primary teacher, President of the National Union of Teachers, Fentange.

Mrs Anne DESOM-EYSCHEN, Primary teacher, Remich.

Mr V DIEDERICH, Secondary teacher, representative of the European Association of Teachers, Bertrange.

Mr Robert DIESCHBOURG, Secondary teacher, Luxembourg.

Mr Denis DIMMER, Primary teacher attached to the Ministry of Education and Youth, Luxembourg.

Mr Erny EVRARD, Primary teacher, Obercorn.

Mr Edouard FANTINI, Primary teacher, member of the Education Board (Commission d'Instruction), Hellange.

Miss Jacqueline FUNCK, Primary teacher, member of the Education Board, Luxembourg.

Mr Jules FUNCK, Vice-Chairman of the National Council for Education (Conseil supérieur de l'Education nationale), Esch-sur-Alzette.

Mr Pierre GOEDERT, Chairman of the National Council for Education, Luxembourg.

Miss Simone HEINEN, Inspector, Luxembourg.

Mr René HEINRICY, Primary teacher, Luxembourg.

Mrs Erna HENNICOT-SCHOEPGES, Member of Parliament, Chairwoman of the Parliamentary Committee on Education, Culture, Sport and Youth, Walferdange.

Mr Gaston HENTGES, Primary teacher, Tétange

Mr Francis HIERZIG, Primary teacher attached to the Ministry of Education and Youth, Secretary to the Education Board, member of the Luxembourg delegation to the CDCC, Luxembourg.

Mr Henri HOSTERT, Senior Government Adviser to the Ministry of Education and Youth, member of the Education Board, Luxembourg.

Mr Francis JEITZ, Inspector, Obercorn.

Mr Lex KAISER, Head of the Educational Innovation and Research Department, Ministry of Education and Youth, Luxembourg.

Mr Lucien KERGER, Inspector, Bergem.

Miss Simone KINTZELE, Primary teacher, Lintgen.

Mr E KOHL, School Film Board, Walerdange.

Mrs Marie-Paule KOHN, Primary teacher, Luxembourg.

Mr Jean-Pierre KRAEMER, Inspector General of Primary Education, Chairman of the Education Board, Larochette.

Mr Paul KRAEMER, Inspector, Howald.

Mr Carlo KRIER, Secondary teacher, Grevenmacher.

Mr Charlot KUHN, Primary teacher, Bridel.

Mrs Michèle KUNSCH, member of the Education Board, Bereldange.

Mr Léon LICKER, Primary teacher, Luxembourg.

Mr Eugène LINSTER, Secondary teacher, Luxembourg.

Sister Thérèse MANGEN, representative of private education, Diekirch.

Mrs Marie-Paule MAURER, Secondary teacher, Helmsange.

Mr Fernand MELAN, Primary teacher, Belvaux.

Mr E MELCHIOR, Primary teacher, Mondercange.

Mr F MILBERT, Primary teacher, Secretary General of the National Union of Teachers, Colmar-Berg.

Mr Lucien MORBACH, Primary teacher, Luxembourg.

Mr F-C MULLER, Director of the National Youth Department, Luxembourg.

Mr Joseph MULLER, Inspector, Luxembourg.

Mrs Margot MULLER, Consultant, School Health Department, Luxembourg.

Mr Othon NEUENS, Primary teacher attached to the Ministry of Education and Youth, Luxembourg.

Misss Adeline PELLEGRINO, Inspector, Esch-sur-Alzette.

Mr Dominique PORTANTE, Inspector, Steinsel.

Mr Michel PUTZ, Educationalist, Directorate of Differentiated Education, Luxembourg.

Mr Roger REMESCH, President of the Federation of Associations of Parents of Primary School Pupils (FAPEEP), Sandweiler.

Mr Paul RIEFF, Inspector, Luxembourg.

Mr Emile SEILER, Secondary teacher, Echternach.

Mr Jean-Pierre SCHMITT, Trainee inspector, Remerschen.

Mr Nico STAUDT, Trainee inspector, Howald.

Mr Edmond STEYER, Primary teacher, Berdorf.

Mr Alex STORONI, Inspector, Niedercorn.

Mr Guy STRAUSS, Trainee inspector, Luxembourg.

Mr Jean TAGLIAFERRI, Secondary teacher attached to the Ministry of Education and Youth, Luxembourg.

Mr Joseph VESQUE, Primary teacher, Luxembourg.

Mr Georges WIRTGEN, Director of the National Institute of Educational Study and Research, Walferdange.